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FIG.2(a)

INPUT PHASE-TO-PHASE VOLTAGE VAC

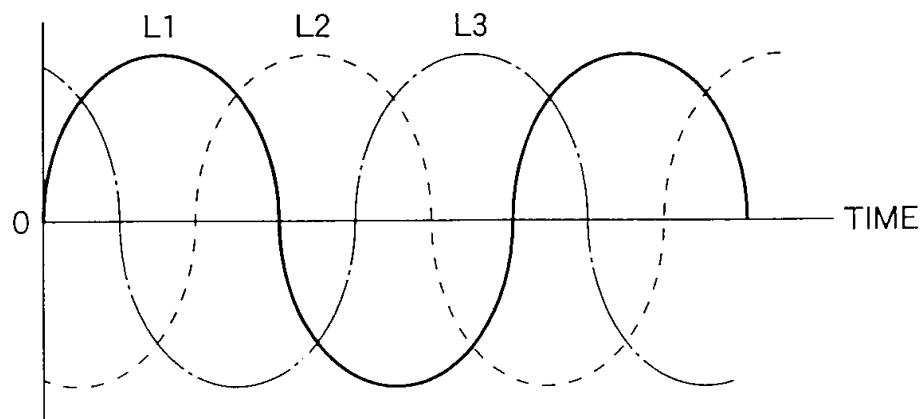


FIG.2(b)

INPUT CURRENT  $I_i$

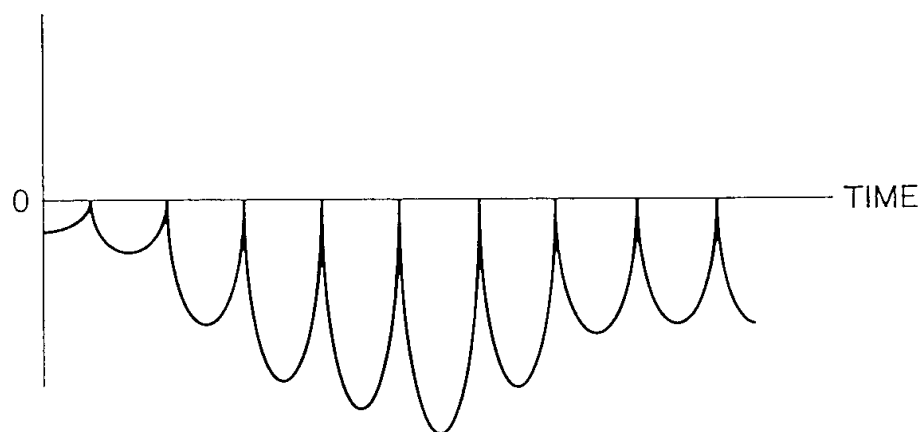


FIG.2(c)

INPUT CURRENT DETECTION PERIOD (CONTROL PERIOD)



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FIG.3(a)

INPUT CURRENT  $I_i$

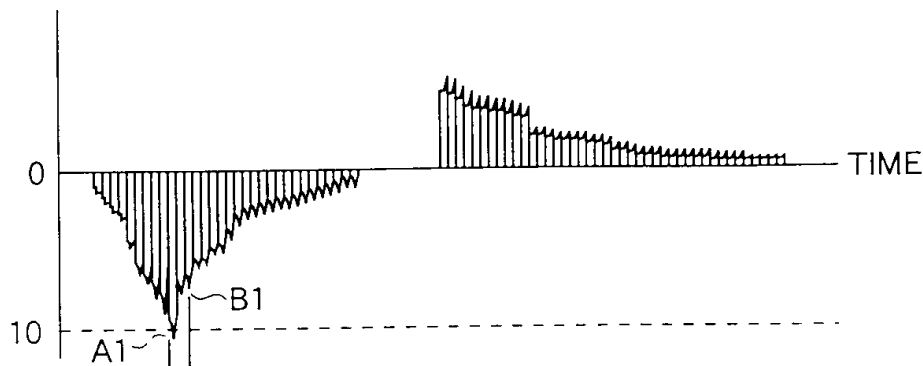


FIG.3(b)

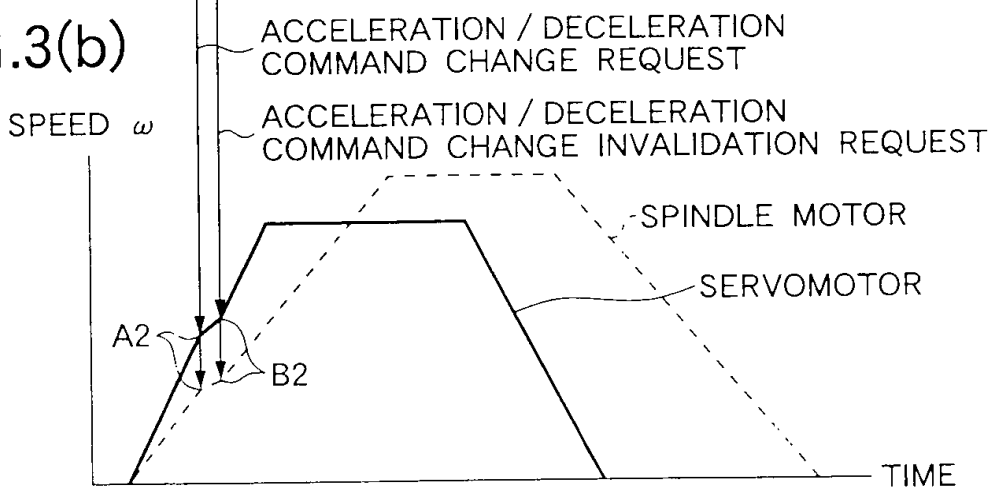


FIG.3(c)

DRIVE CURRENT  $I_d$

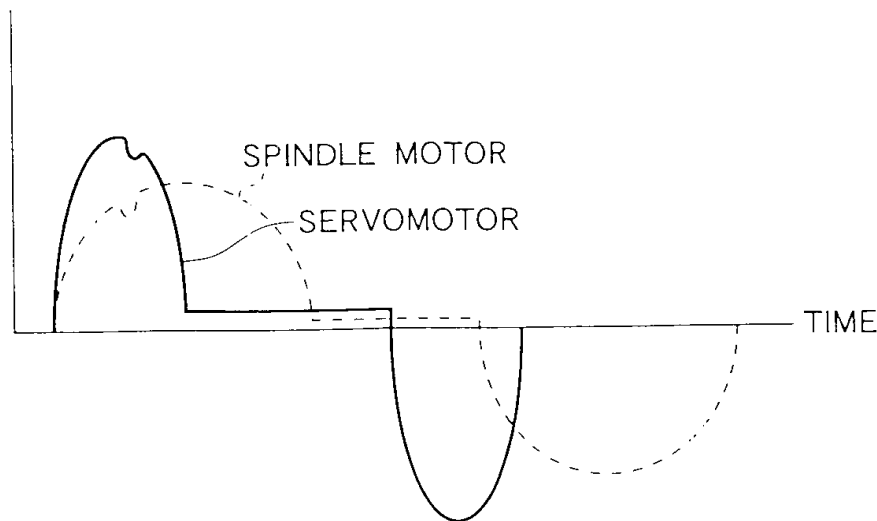
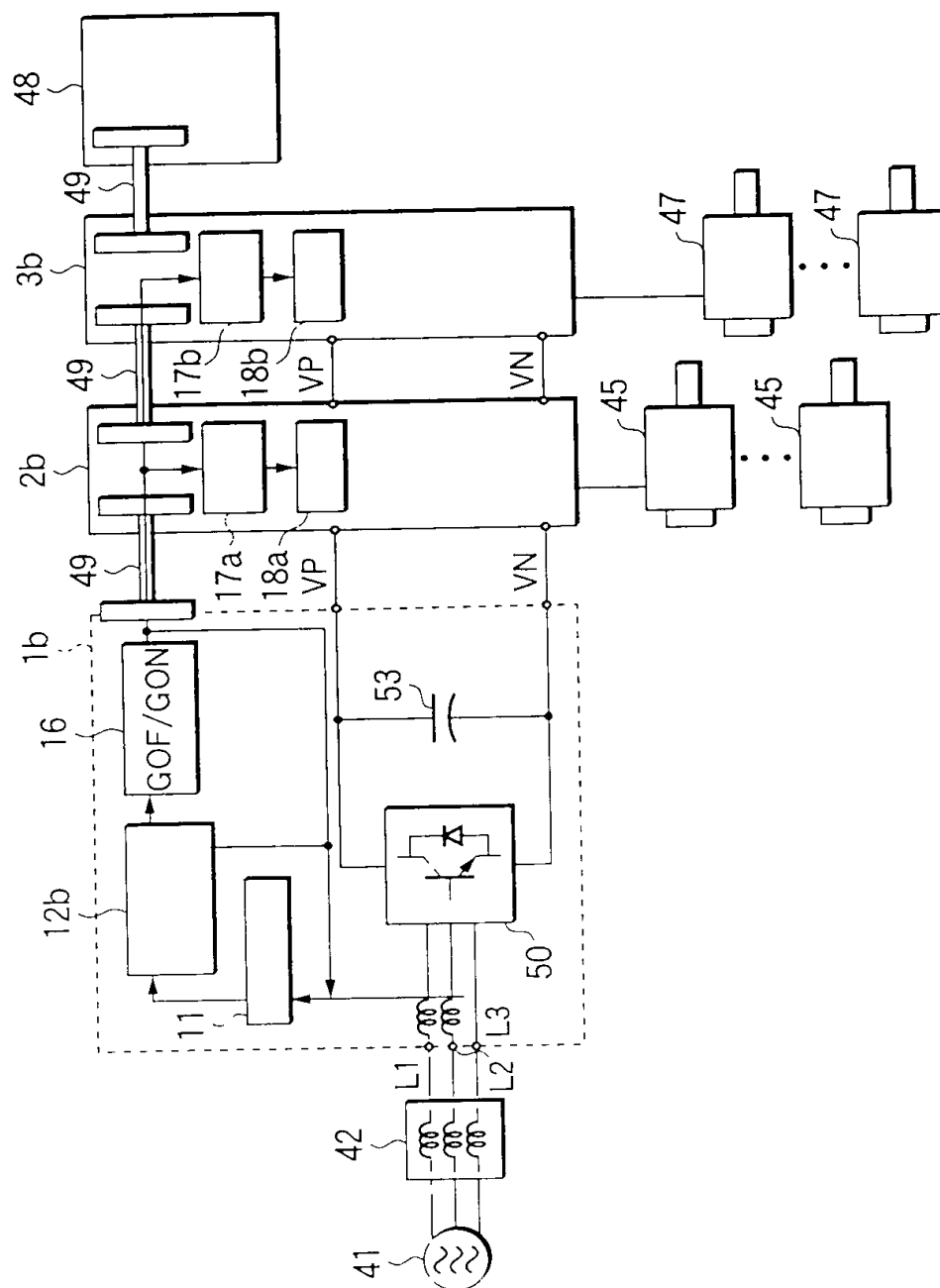


FIG. 4



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FIG.5(a)

INPUT CURRENT  $I_i$

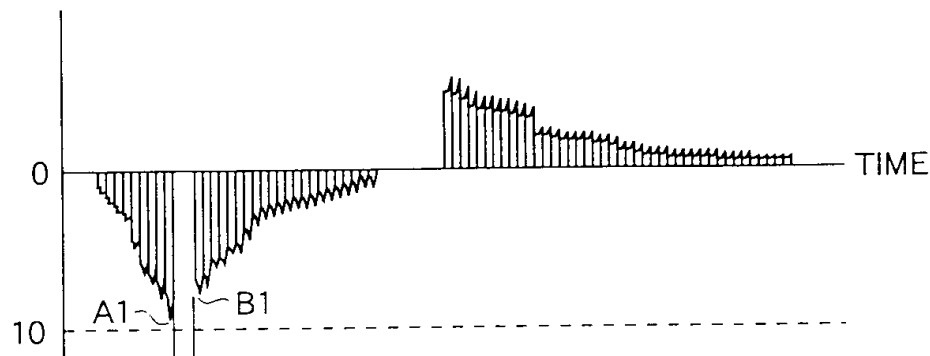


FIG.5(b)

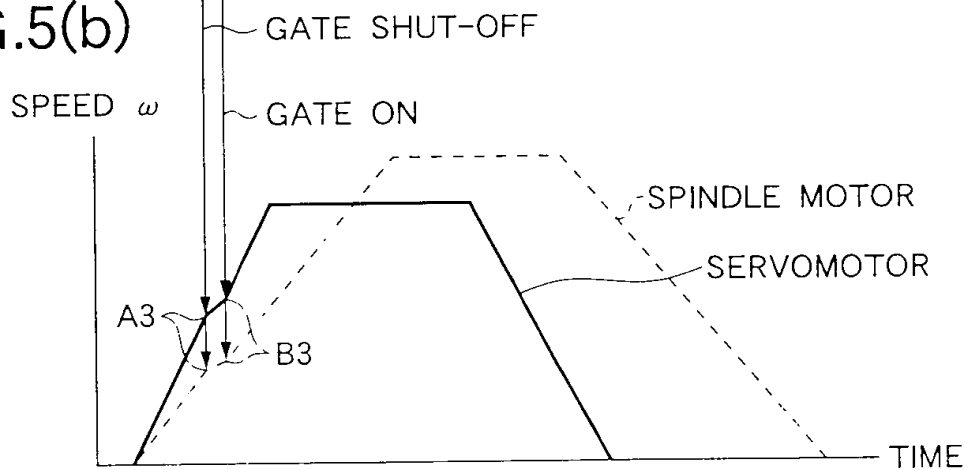
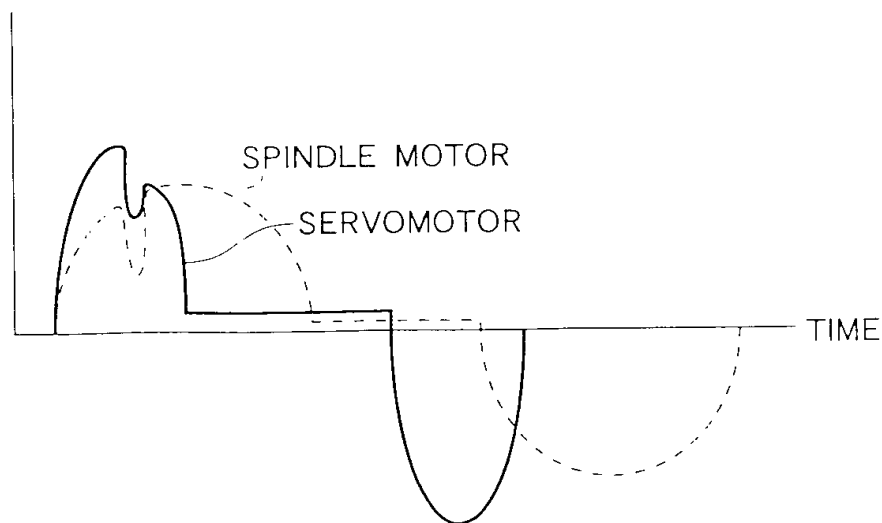


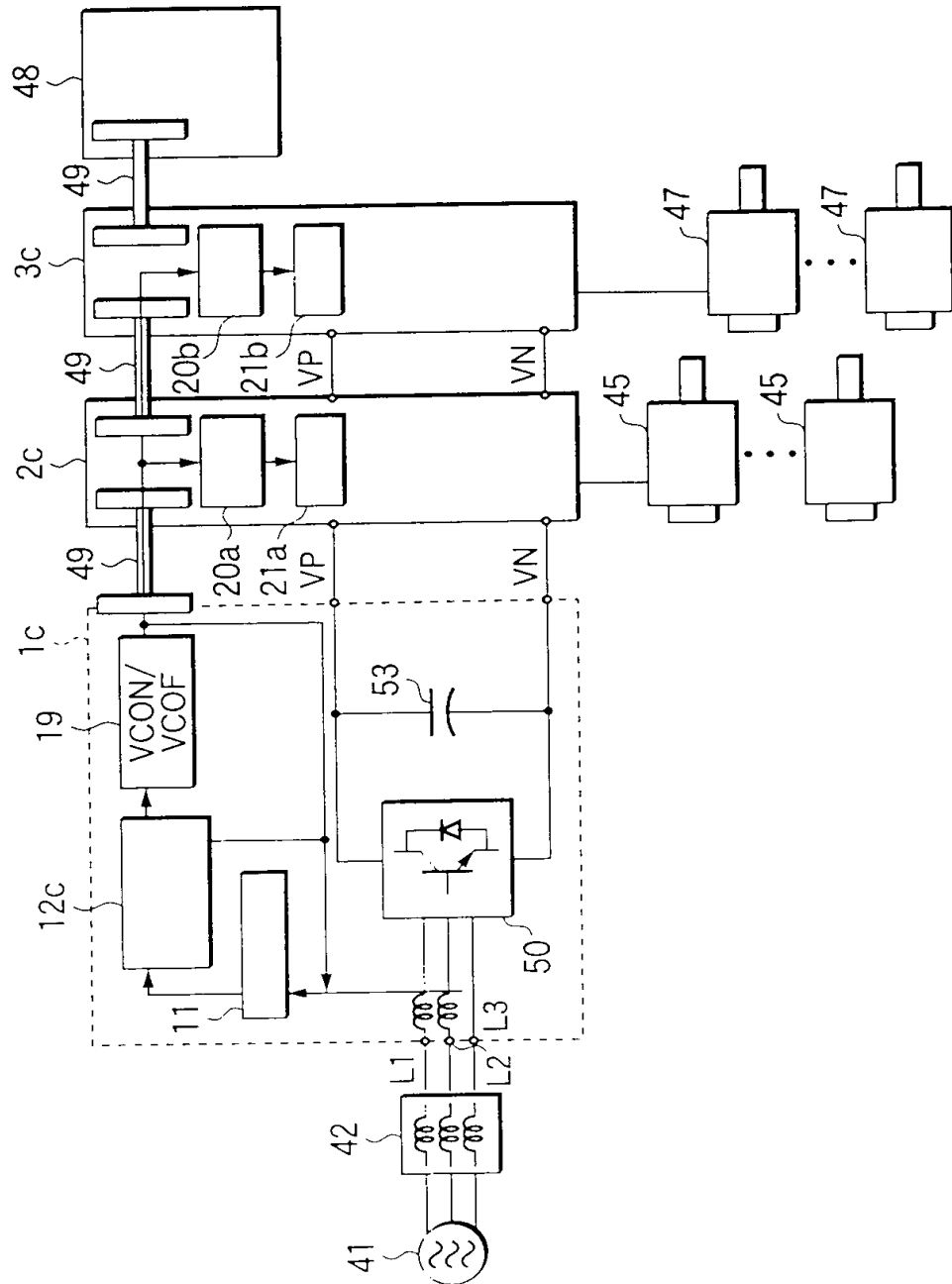
FIG.5(c)

DRIVE CURRENT  $I_d$



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FIG.6



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FIG.7(a)

INPUT CURRENT  $I_i$

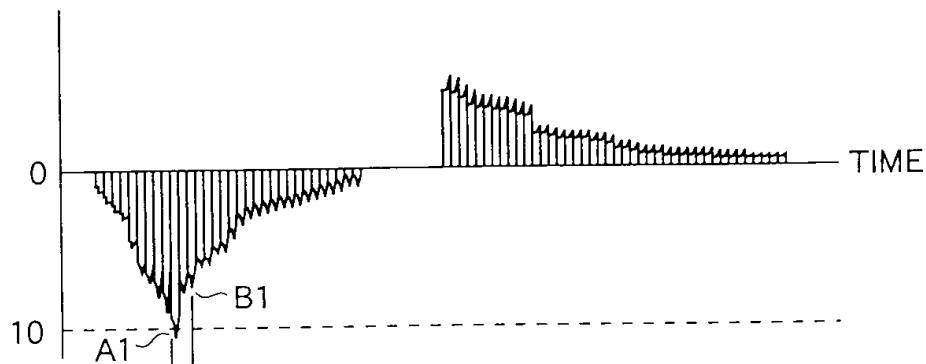


FIG.7(b)

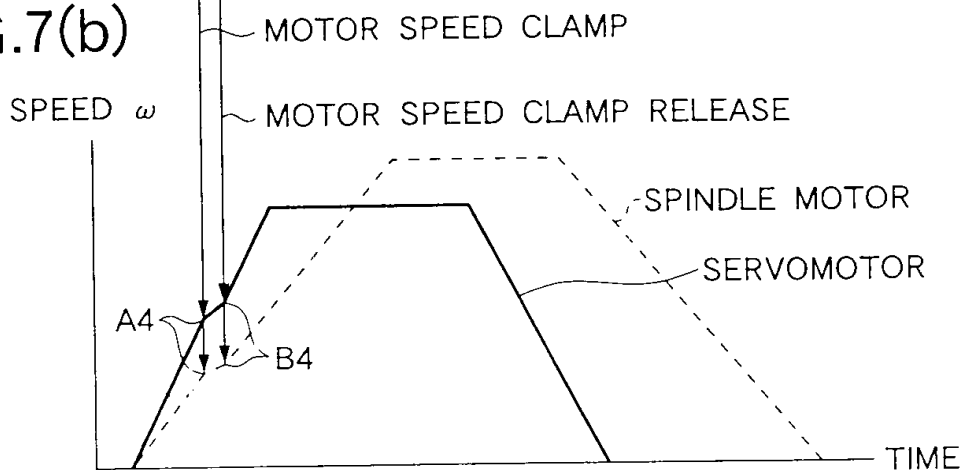
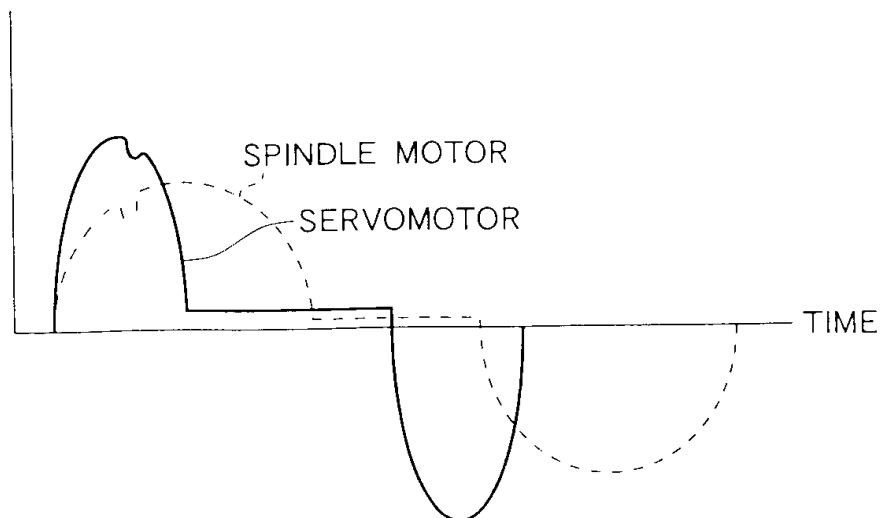


FIG.7(c)

DRIVE CURRENT  $I_d$







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FIG.9(a)

INPUT CURRENT  $I_i$

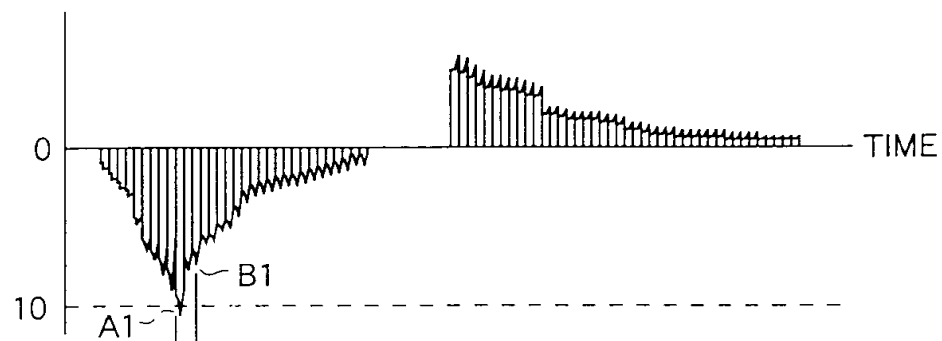


FIG.9(b)

SPEED  $\omega$

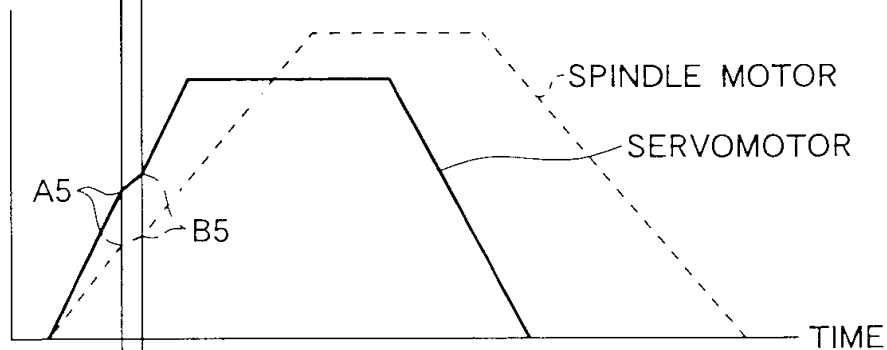
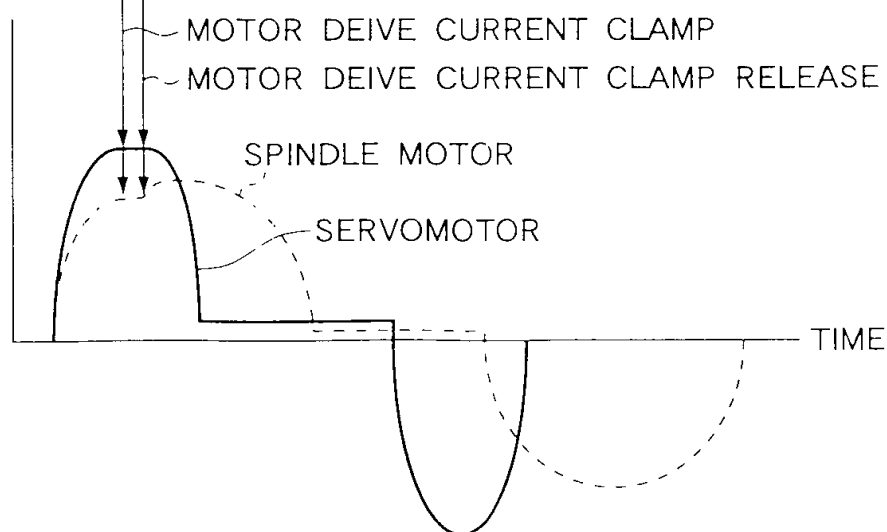
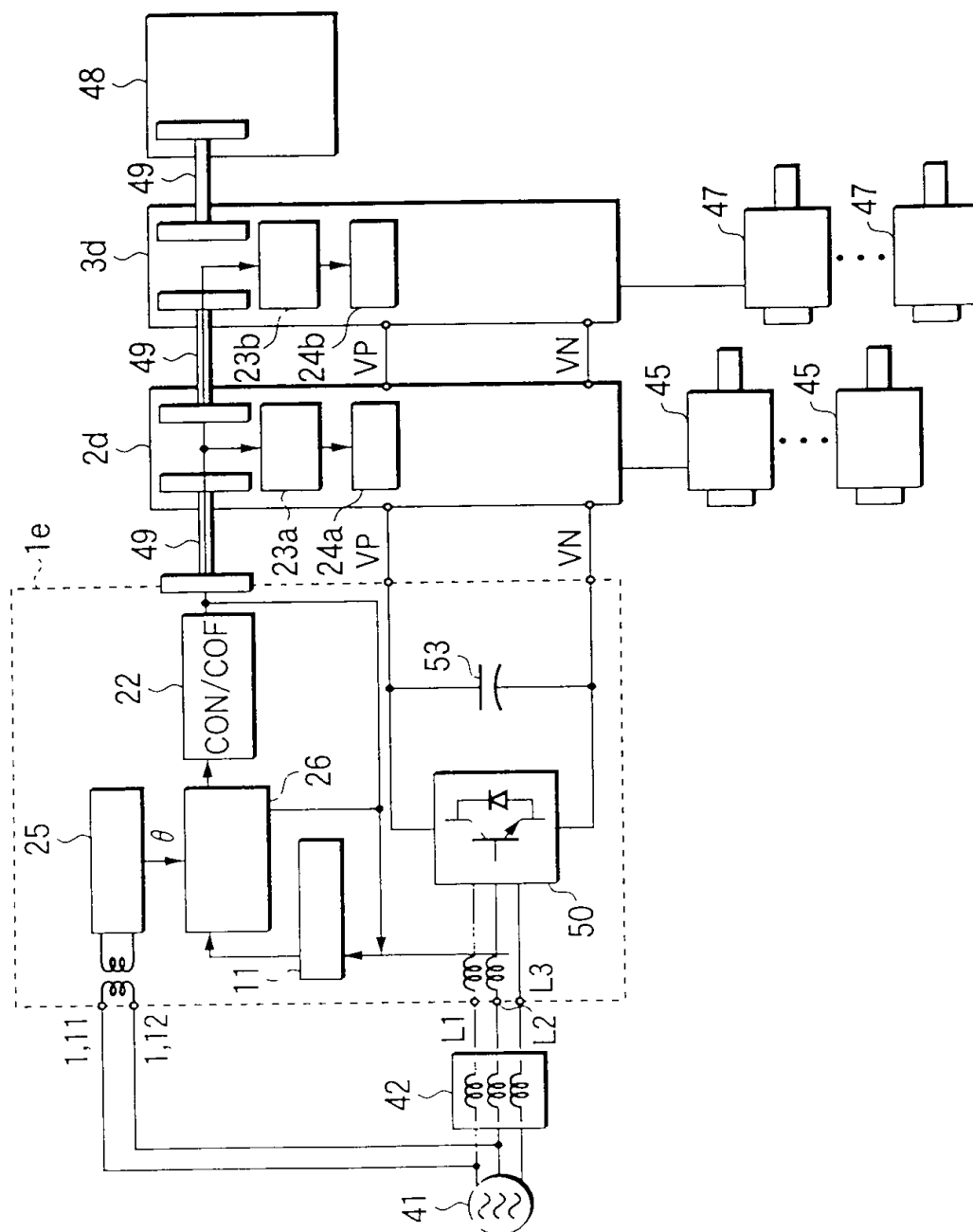


FIG.9(c)

DRIVE CURRENT  $I_d$





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FIG.11(a)

INPUT PHASE-TO-PHASE VOLTAGE VAC

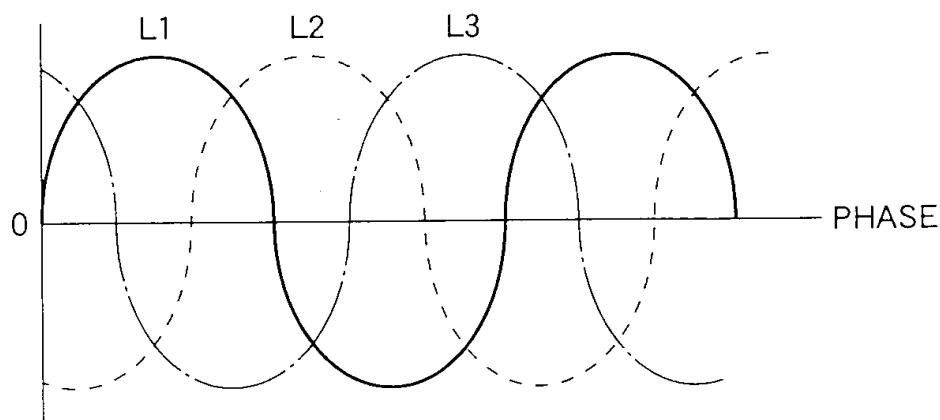
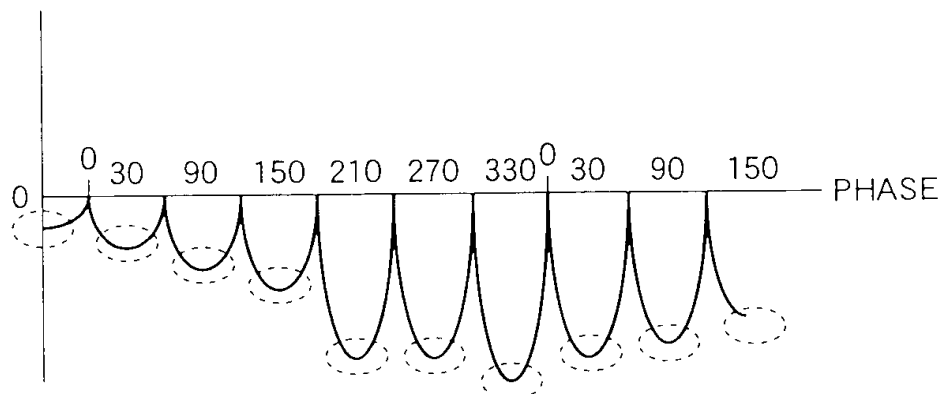


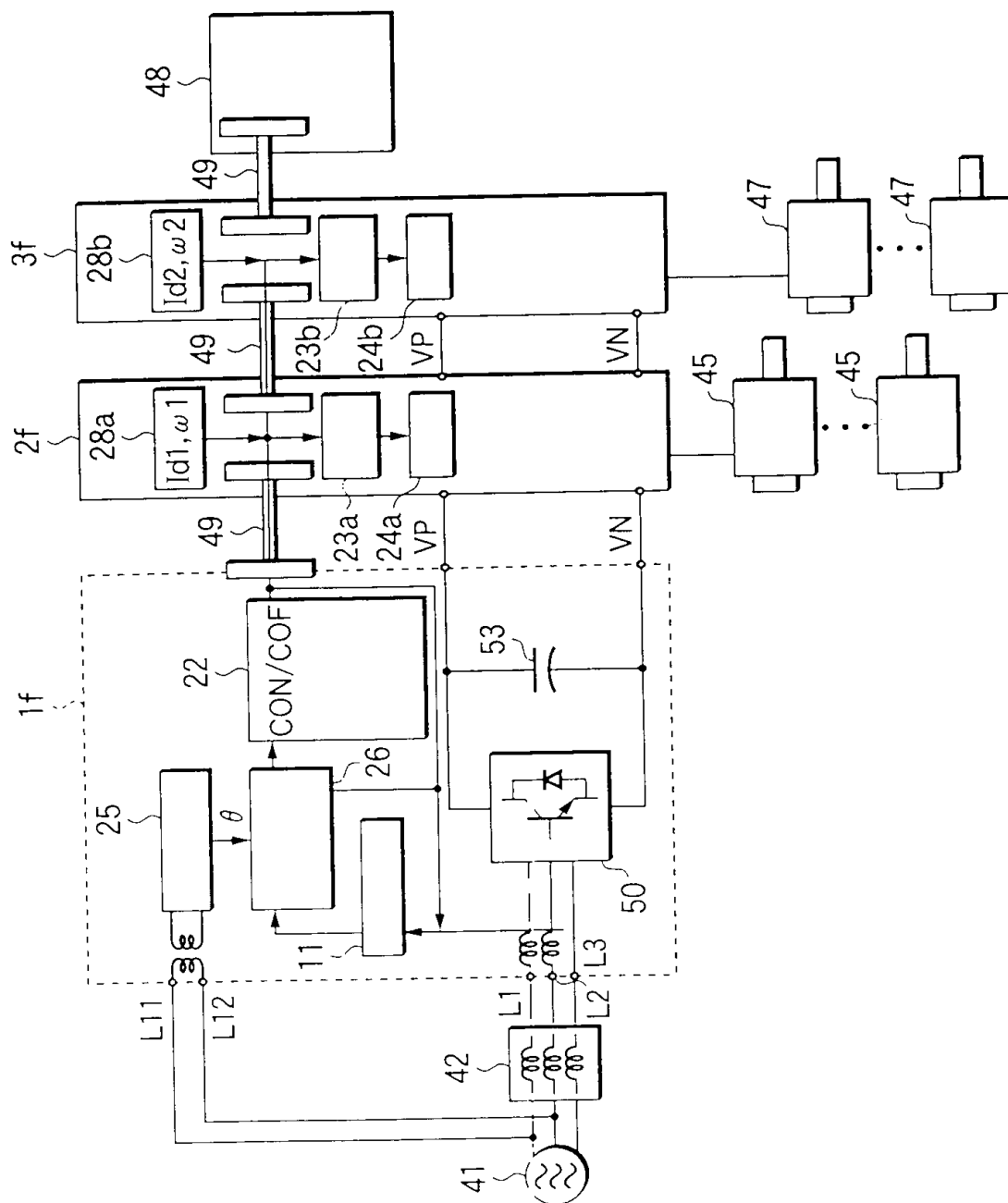
FIG.11(b)

INPUT CURRENT  $i_i$



INPUT CURRENT IS DETECTED ONLY IN THE VICINITY OF PHASE WHERE THE INPUT CURRENT REACHES THE PEAK

FIG. 12



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FIG.13

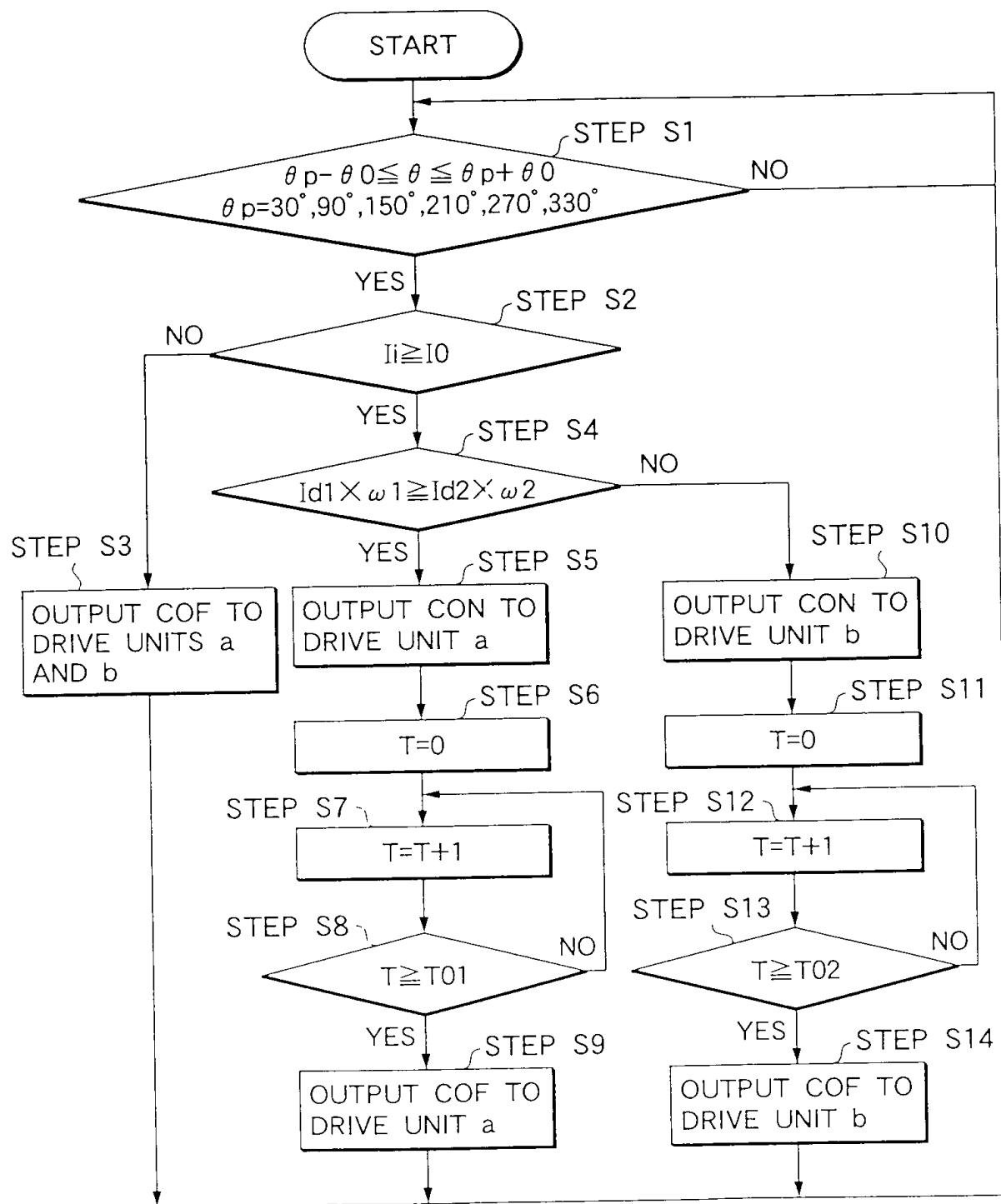


FIG.14

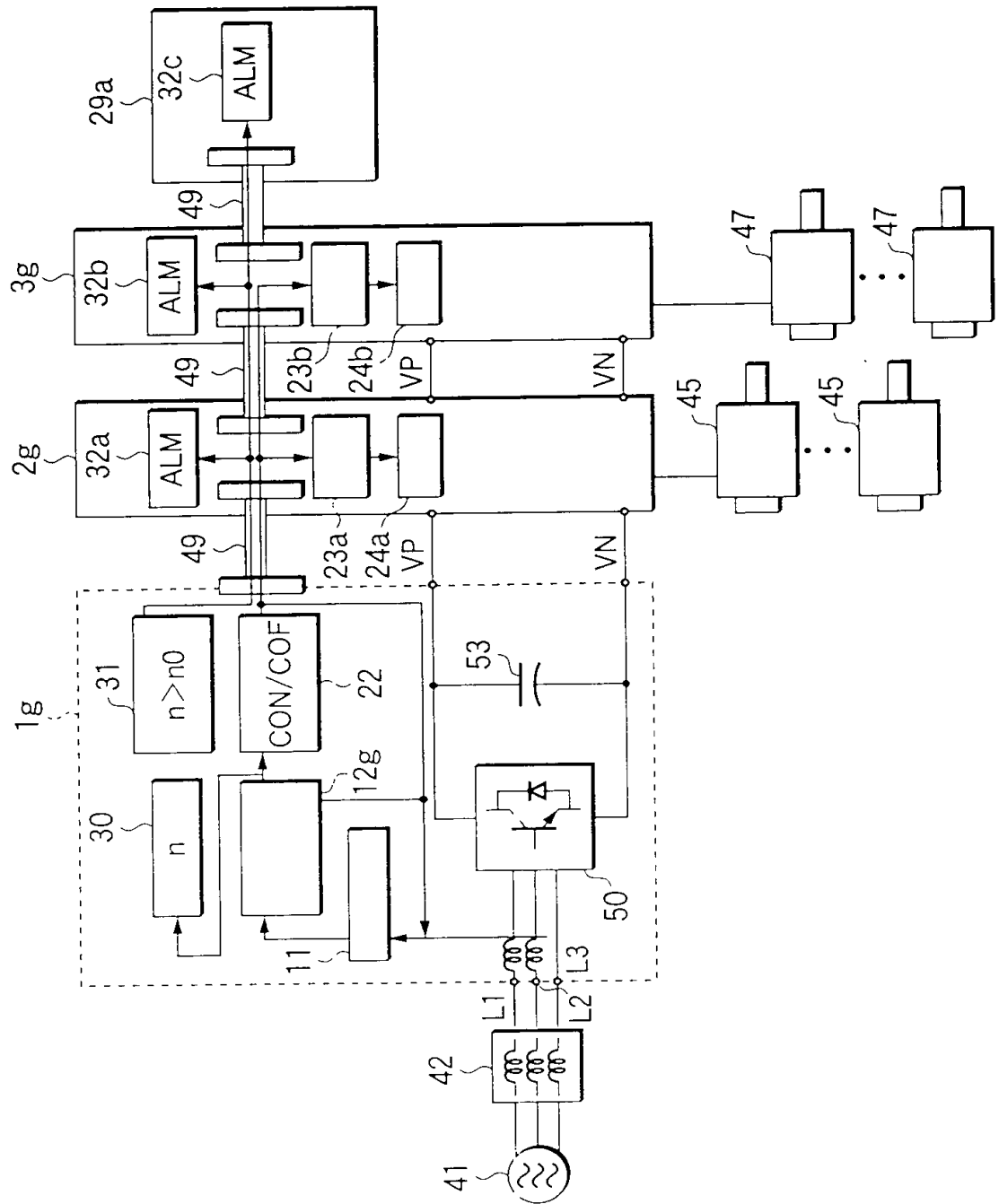
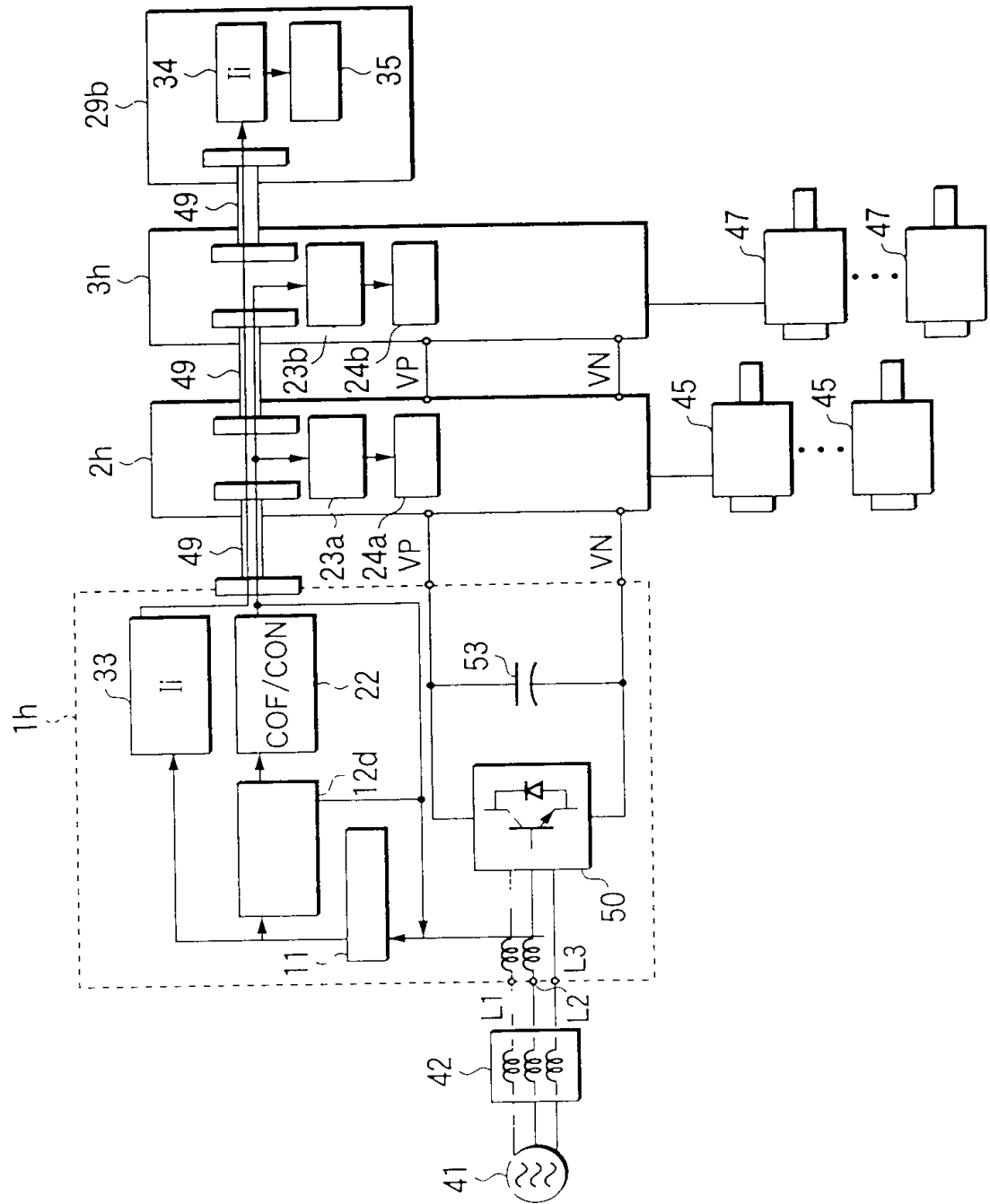
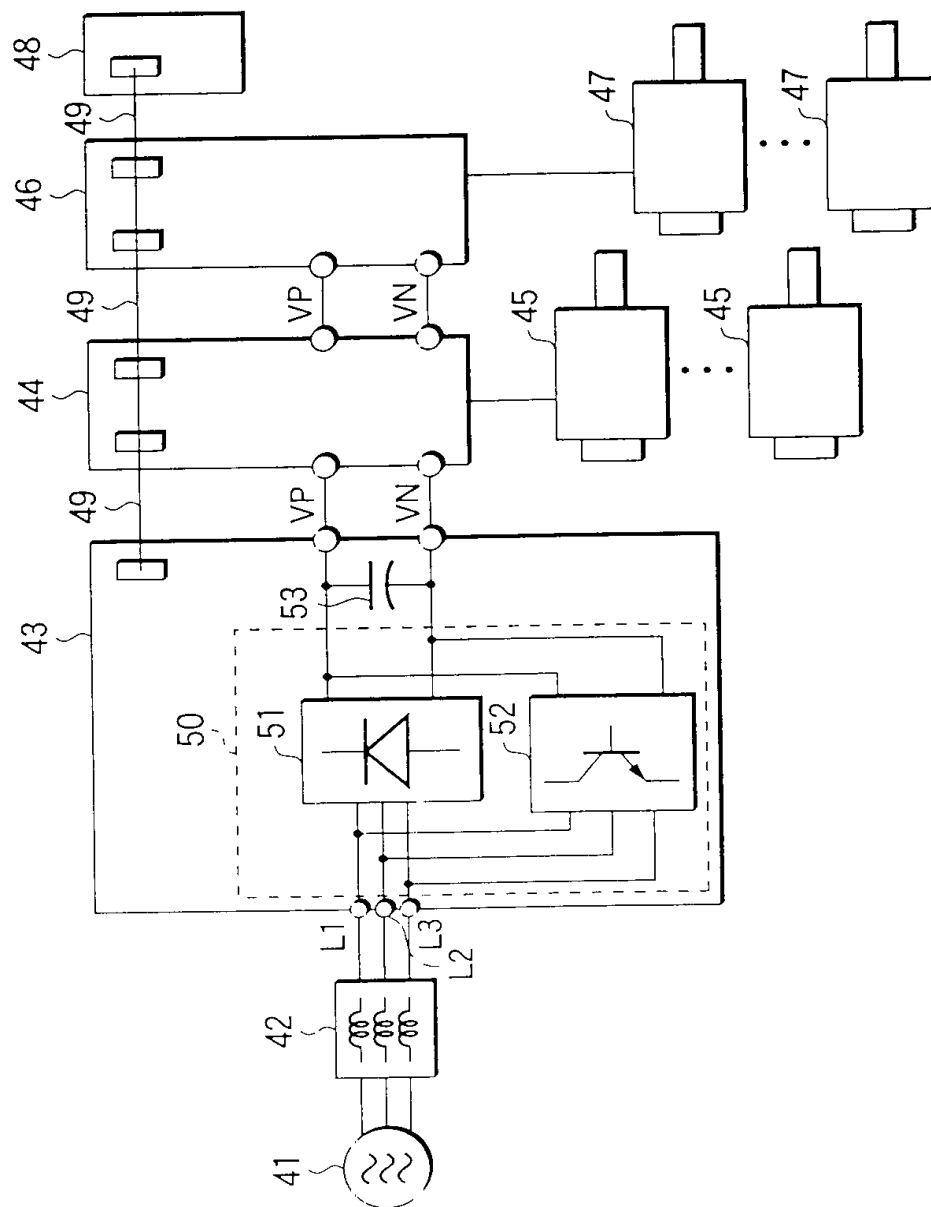


FIG.15



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FIG.16





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FIG.17

